

Whales & Sonar: A Deadly Mix – From EcoWatch, 2/28/2013, Written by David Suzuki

Whales face numerous threats, many from garbage and toxins dumped into the oceans. Human-caused noise pollution also harms whales, leading to death, stranding, temporary and permanent hearing loss and hemorrhaging around the brain, ears and other tissues from decompression sickness when whales are startled by sound and surface too quickly.

Sonar used in naval training is a major cause of these debilitating and often deadly injuries to whales and other aquatic animals. With their sensitive hearing, marine mammals are particularly vulnerable. Sonar disrupts their ability to communicate, migrate, breathe, nurse, breed, feed, find shelter and, ultimately, survive.

In 2010, the U.S. National Marine Fisheries Service and the U.S. navy estimated that over five years, navy activities in the Northwest Training Range—including high-intensity sound waves from sonar and live-fire and bombing exercises—would result in about 650,000 instances of harm to marine mammals. Though the navy has been conducting training exercises here for several decades, it recently sought permits to increase the intensity and pace.

Extending south from Puget Sound in Washington State to the Lost Coast region of Northern California, the training range provides habitat for eight threatened or endangered species of whales, pinnipeds (including seals and sea lions) and otters.

Whales don't recognize international borders, so the David Suzuki Foundation and three other Canadian environmental groups, represented by Ecojustice lawyers and U.S. counsel, joined a U.S. district court case to stop the harmful activities.

Blue, fin, sei, humpback and southern resident killer whales are listed as endangered or threatened under Canada's Species at Risk Act. The draft SARA Action Plan for three whale species confirms that acute underwater noise is one of three key threats—with pollution and reduced prey availability—that may hinder recovery in Canadian waters. Environmental organizations argue that approval of increased testing would undermine recovery efforts.

Although information about the volume of noise from sonar systems is classified, we know the navy uses some mid-frequency, high-intensity systems over 235 decibels. In water, even humans exposed to 167 to 185 decibels can become disoriented.

Sonar is a problem worldwide, affecting large areas of marine habitat. Naval exercises using sonar have been linked to whale and marine mammal stranding in Greece, the Bahamas, Canary Islands, Hawaii's Hanalei Bay and North Carolina. Those are just the recorded beached whales, not the dead that sank. During the Bahamas mass whale stranding, sound levels exceeded 235 decibels and reached 160 decibels tens of kilometers away.

Add to this the fact that increased shipping traffic and offshore industrial activity have boosted background underwater noise levels in the world's oceans by an average of 15 decibels over the past 50 years.

Although there's no dispute that sonar can harass, injure and kill marine life, the extent of damage may not be fully understood for years. The hundreds of thousands of harmful instances deemed acceptable for the Northwest Training Range are likely minimized. Since the initial estimate, studies show damage happens at lower sound levels than previously thought.

Canadian environmental groups are participating in the U.S. court case to ensure approval of military exercises will not frustrate our efforts to protect whales and help their populations recover. The court must consider information about the whales' conservation status under SARA, and international law requires the U.S. to prevent serious harm to transboundary whales.

Still, Canada has its own work to protect endangered whales and other marine life. Although a federal court gave B.C.'s killer whales stronger critical habitat protection last year, the government must live up to its responsibility to fully implement SARA and put recovery plans in place for more than 150 "waiting" species. It can't only be a species-by-species approach. We need to commit to marine planning, federally and provincially, that is ecosystem-based and balances habitat requirements with economic activities.

The 2012 fall report of the Commissioner of the Environment and Sustainable Development warns that at our current rate of creating protected areas, Canada won't meet its commitment to protect 10 percent of our oceans by 2020 for many decades. We know relatively little about the marine world, yet we are having an increasing impact on oceans with little understanding of the consequences.

Endangered species cannot recover and survive without efforts on both sides of the border to ensure they are protected from acoustic harm.